Rev. 1

Live/Dead Cell Staining Kit (CSK)
Catalog #8138, 1000 tests

Product Description

The ScienCell™ Live/Dead Cell Staining Kit is a two-color fluorescence assay for convenient discrimination of live cells from dead cells. This kit can be applied to a fluorescence microscope, a fluorescent plate reader, or a flow cytometer. All cells, live and dead, will fluoresce green. Due to changes in membrane integrity, dead cells will also fluoresce red. The ratio of live/dead cells can be calculated using the Live/Dead Cell Staining Kit.

Kit Components

Cat. #	# of vials	Product Name	Quantity	Storage
8138	1	Live/Dead Cell Staining Solution (100×)	0.1 mL	-20ºC, dark

Quality Control

CSK is quality control tested using freshly harvested primary cells. All cells appear fluorescent green, while dead cells are fluorescent red. See Figure 1 below, for an example fluorescent image from the Live/Dead Cell Staining Kit.

Product Use

CSK is used to evaluate live/dead cells *in vitro*. CSK is for research use only and is not approved for human or animal use, or application in clinical or *in vitro* diagnostic procedures.

Shipping

Dry ice.

Additional Recommend Materials (Not Included)

Cat. #	Product Name
0303	Dulbecco's Phosphate-Buffered Saline (DPBS)
0183	Trypsin/EDTA Solution (0.05%)
0113	Trypsin Neutralization Solution

Procedure

A. Preparation of working staining solution.

1. Thaw and dilute appropriate volume of Live/Dead Cell Staining Solution Stock (100x) 100 times with PBS to make a working 1x staining solution. This working Live/Dead Cell Staining Solution is stable for up to one month at 4ºC.
    i. For example, dilute 10 µL Live/Dead Cell Staining Solution (100x) in 1000 µL of PBS to make a working 1x staining solution.

B. Staining of cells.

1. Remove cells from culture vessel using Trypsin/EDTA (Cat.# 0183) and neutralize with Trypsin Neutralization Solution (Cat.# 0113).
2. Count the total number of cells using a hemocytometer.
3. Centrifuge cells at 1,100 RPM for 5 minutes.
4. Resuspend cells gently in DPBS (Cat# 0303) to 1~2 x 10^6 cells/mL.
5. Add equal volume of working 1x Live/Dead Cell Staining Solution to cell suspension, mix well.
    i. For example, add 10 µL cell suspension and 10 µL 1x Live/Dead Cell Staining Solution.

C. Observation and calculation of live/dead cell ratio.

1. Pipet a small amount of the cell/staining mixture onto a microscope slide, and cover it with a glass cover slip.
2. Observe cells immediately under a fluorescence microscope. Live and dead cells should stain fluorescent green (Ex495/Em518), while only dead cells should fluoresce red (Ex493/Em620).
3. Count cells and calculate the live to dead cell ratio.

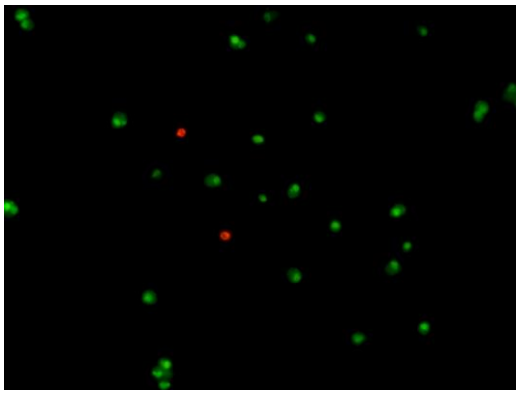

Figure 1. A fluorescence image showing primary cells stained with Sciencell's Live/Dead Cell Staining Kit with dead cells fluorescing red. All cells present stained fluorescent green.